
Appendix B: Definitions

- **Action Levels (AL)** - Unless otherwise specified in a NA VOSH standard, one-half the relevant permissible exposure limit (PEL), threshold limit value (TLV).
- **Action Memorandum** - For Removal Action to be accomplished at NPL and non-NPL sites. 1) For an Interim Removal Action -specifies what threat is being addressed and how long the action will remain effective; should also state what type of final action may be conducted and how the removal action contributes to the implementation of the final action. 2) For a Final Removal Action -specifies the performance standards or cleanup levels to be reached by the actions.
- **Adjacent Property** - Either those properties contiguous to the boundaries of the property being surveyed or other nearby properties.
- **Administrative Record** - A compilation of information used to make the remedial decisions for a site. It is established for all CERCLA sites, which have progressed through the Preliminary Assessment or Site Investigation phases or where a removal action is being accomplished. The DON makes the Administrative Record available to the public at the start of the remedial investigation for remedial actions and at the time of engineering evaluation/cost analysis (EF/CA) for removal actions.
- **Adsorption** -The surface retention of solid, liquid, or gas molecules, atoms, or ions by a solid or liquid as opposed to absorption, the penetration of substances into the bulk of the solid or liquid.
- **Applicable Requirements** - Those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Only those State standards that are identified by a State in a timely manner and that are more stringent than Federal requirements may be applicable.
- **Aquifer** - A natural underground supply of water. Usually found permeating porous rock.
- **Archeological Resources** - Material remains of past human life that are capable of contributing to scientific or humanistic understanding of past human behavior, cultural adaptation, and related topics through the application of scientific or scholarly techniques.
- **Area Environmental Coordinator** - Responsible for coordination of environmental issues within their designated EPA region. Appoint RECs and NOSC's within AEC's area of responsibility.

- **Area of Concern (AOC)** - A discrete area of contamination or suspected contamination in the P NSI (or RFA) phase that has not been entered into the DoD RMIS database.
- **Baseline Risk Assessment** - An analysis of the potential adverse health effects (current or future) caused by contaminant releases from a site in the absence of any actions to control or mitigate these releases. Provides a basis to determine whether remedial action is necessary, the justification for performing remedial actions.
- **Bioaccumulate** - The ability of a plant or animal to bring a substance to a higher concentration in its own tissue than is found in its food supply or surrounding air, water, or soil.
- **Blood borne Pathogens** - Pathogenic microorganisms that are present in human blood and can cause diseases in humans. These pathogens include hepatitis B virus and human immunodeficiency virus (HIV).
- **BRAC Cleanup Plan (BCP)** - The road map for expeditious cleanup necessary to facilitate conveyance of property to communities for redevelopment.
- **BRAC Environmental Coordinator (BEC)** - The DoD representative on the Base Closure Team: has the responsibility and implementation authority for environmental cleanup programs related to the transfer of the installation's real property.
- **BRAC Environmental Funding** - Includes all NAVFAC centrally-managed environmental projects except NEPA, that are funded through the BRAC account such as environmental studies, clean up, compliance, and restoration. It includes Marine Corps installation for restoration work only.
- **Building Demolition/Debris Removal (BD/DR)** - One of the program categories under DERP that covers demolition and removal of unsafe buildings or structures at FUDS properties that have not had beneficial use since transfer to State or local governments or native corporations in Alaska. BD/DR projects are a Component's responsibility and should be programmed within Component resources.
- **Carcinogen** - A substance capable of causing cancer (carcinogenicity is the ability to cause cancer).
- **CERCLIS (CERCLA Information System)** - EPA's comprehensive database and management system that inventories and tracks releases addressed or needing to be addressed by the Superfund Program. CERCLIS contains the official inventory of CERCLA sites and supports EPA's site planning and tracking functions.
- **Closeout** - Occurs when DON considers no further response actions under the IR Program to be appropriate for the site and no significant threat to public health or the environment exists and regulatory concurrence has been received.

- **Comprehensive, Long -Term Environmental Action, Navy (CLEAN) Contract** - Contract to provide professional services during the study/design phase of the IR Program.
- **Conceptual Model1** - Describes a series of working hypotheses of how the stressor might affect ecological components. Describes ecosystem potentially at risk and the relationships between measurement and assessment endpoints and exposure scenarios. Provides a three-dimensional understanding of contaminant sources, pathways, and receptors and tools needed to identify and fill data gaps, screen remedial alternatives, and evaluate the performance of remedial actions.
- **Contaminant Fate and Transport** - Pathways or routes for migration of a contaminant off site, e.g., windblown dust, surface water runoff, erosion, and drainage ditches. A decreasing gradient of contamination may exist with increasing distance from a site.
- **Contaminant Hazard Factor (CHF)** - A factor derived from a comparison of the contaminant concentrations at a site to: 1) establish risk-based standards. 2) preliminary remediation goals, or 3) health/ecological risk-based criteria.
- **Cultural Resource** - A generic term commonly used to include buildings, structures, districts, sites, objects of significance in history, architecture, archeology, engineering, or culture. The term also includes associated documents and records.
- **Database** - Usually on-line or CD-ROM based information systems. These systems may be searched based on a number of parameters and yield a large amount of information in a short period of time.
- **Data Quality Objectives (DQOs)** - Quantitative and qualitative statements specified to ensure that data of appropriate quality are collected during IR Program field activities.
- **Decision Documents (DDs)** - For non-NPL sites, it contains the official statement of remedial action(s) required for a site and demonstrates that the response action chosen is consistent with, and meets the requirements of, CERCLA and the NCP .The DD must be signed before initiation of Remedial Action (RA). The DD contains the official statement of remedial actions required for a site. Demonstrates that the response action chosen is consistent with. and meets the requirements of, CERCLA and the NCP; and documents DON decisions regarding response action selection. Decision Documents include a Record of Decision required at NPL sites and a "decision document" similarly formatted and required at Non-NPL sites. Both documents must be provided before RD/RA.
- **Defense Environmental Network and Information Exchange (DENIX)** - A DoD-wide information exchange to facilitate and support communications and environmental awareness; consists of an integrated set of menus comprising a collection of application programs, databases, bulletin boards forums. and UNIX

utilities to complement other existing services available; provides access to a wide variety of information which can be downloaded to personal computers.

- **Defense Environmental Restoration Account (DERA)/ Environmental Restoration, Navy (ER,N)** - Section 211 of SARA established DERA to for the cost of DoD responses to clean up HS sites. Funds from DERA are transferred to the services for uses consistent with the Defense Environmental Restoration Program (DERP); The ER,N account was established by the DON in 1996 to support DOD decisions to devolve the DERA to the services in the FY96 Execution Year and thereafter.
- **Defense Environmental Restoration Program** - Formally established by Congress in 10 U.S.C. 2701- 2707 and provides centralized management for the cleanup of DoD hazardous waste sites consistent with the provisions of CERCLA, the NCP, and Executive Order 12580.
- **Defense and State Memorandum of Agreement (DSMOA)** - Represents a commitment between DoD and the State to cooperate in meeting cleanup goals and schedules and also establishes the procedural framework for payment of State services. The DSMOA is not, however, a funding document
- **Discharge** - For the purpose of NCP, discharge, as defined by section 311(a)(2) of the Clean Water Act (CWA), includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil. Not covered by a permit under the NCP, discharge also means threat of discharge.
- **Disposal** - The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or in any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters including groundwater.
- **Ecological Risk Assessment** - A quantitative and/or qualitative appraisal of the actual or potential effects of a hazardous waste site on plants and animals other than people or domesticated species.
- **Ecosystem** - The biotic community and abiotic environment within a specified location and time.
- **Effectiveness** - The degree to which an alternative reduces toxicity, mobility, or volume through treatment minimizes residual risks and affords long-term protection, complies with ARARs, minimizes short-term impacts, and how quickly it achieves protection.
- **Emergency Response** - Response to those circumstances that may immediately endanger human health or the environment where the release or threatened release is on, or the sole source of the release is from, a Navy facilities.

- **Emerging Technology** - A technology in the development stage (pilot-scale testing, bench-scale study) of production. A theoretically sound technology that has not had the application needed to become widely accepted.
- **Environment** - As defined under CERCLA section 101(8), includes navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the U. S. under the Magnuson Fishery Conservation and Management Act; and any other surface water, groundwater, drinking water supply, land surface or subsurface strata, or ambient air within the U. S. or under the jurisdiction of the U. S.
- **Environmental Risk** -The potential or likelihood of injury, disease, or death resulting from human exposure to a potential environmental threat
- **Exposure Assessment** -The determination or estimation (qualitative or quantitative) of the magnitude, frequency, duration, and route of exposure.
- **Exposure Incident** - A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.
- **Exposure Pathways** - The "routes" by which ecological receptors can be exposed to contaminants, i.e., 1) for terrestrial plants -root absorption, 2) for aquatic animals or plants -direct contact with water and/or ingestion of food or sediment, 3) for aquatic plants, and 4) for terrestrial animals -inhalation, ingestion, and dermal absorption.
- **Facility** - As defined under CERCLA §101(9),any building, structure, installation, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft; or any site or area where a hazardous substances have been deposited. stored. disposed of, placed. or otherwise come to be located, but does not include any consumer product in consumer use or any vessel..
- **Fast Track Cleanup** - A common sense approach to the cleanup of contamination at closing bases. Parcels with no contamination will be identified quickly and made available for transfer.
- **Fate** - Disposition of a material in various environmental compartments, e.g., soil or sediment, water, air, biota, as a result of transport, transformation, and degradation.
- **Feasibility Study (FS)** - Identifies alternatives for remediation or cleanup of a site and recommends the most feasible cleanup strategy .The FS emphasizes data analysis and is generally performed concurrently and in an interactive fashion with the RI, using data gathered during the RI.
- **Federal Agency Hazardous Waste Compliance Docket** - Established by Congress under SARA to identify Federal facilities that must be evaluated for potential

inclusion on the NPL. EP A compiles and maintains information on the cleanup status of these sites.

- **Federal Facility Agreement (FFA)** - A negotiated legal agreement between the Navy and the EPA governing the CERCLA and RCRA administrative process for cleanup at NPL sites. The provision of this agreement are factors in setting project execution priorities through risk management, and are tools for formalizing commitments making selection of remedial action less adversarial. States may participate at their discretion.
- **Federal Facility State Remediation Agreement (FFSRA)** - A negotiated nonregulatory legal agreement governing the CERCLA and RCRA administration process for cleanup at certain non-NPL sites. As with FFAs, provisions of FFSRAs are factors in setting project execution priorities through risk management, and are also tools for formalization commitments making selection of remedial action less adversarial.
- **Final Actions** - Those actions that achieve the final cleanup objectives, considering long-term effectiveness and permanence, for the particular site, media, or operable unit.
- **Finding of Suitability to Transfer** - A document which describes the basis for the deed restrictions to be included in any recorded deed(s). It also includes the rationale for the property being suitable for the intended use; and the future use restrictions for the property related to releases 'noticed' in the transfer documents and which are consistent with all the remedial decisions.
- **Food Chain** - A hierarchy of the organisms in an ecosystem, organized according to who eats who.
- **Geostatistics** - A set of statistical tools developed by the mining industry to estimate ore concentrations and now advocated by EP A to provide a logical framework for sampling and analysis of environmental data and to provide for more efficient site investigations and cleanups.
- **Groundwater** - Water in a saturated zone in stratum beneath the surface of land or water.
- **Hazard Ranking System (HRS)** - A method established by the EPA using such factors as amount and toxicity of contaminants, potential mobility, pathways for human exposure and proximity of population centers to evaluate the relative potential hazard to health and the environment of a contaminated site. Information from the PNSI is used for scoring Federal sites. Sites receiving scores above 28.5 (and having the highest potential for affecting human health, welfare, and the environment) are put on the NPL.

- **Hazardous Substance (HS)** - For the purposes of the IR Program, HS is as defined in CERCLA section 101(14) and designated under reference (b). This includes materials that, because of its quantity, concentration, or physical, chemical or infectious character, may pose a substantial hazard to human health or the environment when released or spilled. Does not include POL, natural gas, or synthetic gas usable as fuel.
- **Hazardous Waste (HW)** - A solid waste or combination of solid wastes which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause or significantly contribute to an increase in mortality or to a serious irreversible or incapacitating reversible illness; or pose a substantial present or potential hazard to human health and the environment when improperly treated, stored, transported, disposed of or otherwise managed.
- **Health and Safety Plan (HASP)** - A plan that establishes procedures for protecting the health and safety of response personnel during all operations, including emergencies, conducted at an Installation Restoration site.
- **Health Hazard** - A chemical mixture of chemicals, or a pathogen for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles, that acute or chronic effects may occur in exposed personnel.
- **Immediate Danger to Life and Health (IDLH)** - A condition at an Installation Restoration site requiring cleanup personnel to wear personnel protective equipment (PPE) to mitigate the site conditions which, without appropriate PPE, would be dangerous to their life or health.
- **Imminent Threat** - A threat posed by a site if human exposure in excess of applicable human health or environmental criteria is predictable prior to implementation of an effective remedial action or an operable unit thereof.
- **Implementability** - One of three criteria of the alternative screening process focusing on the technical feasibility and availability of the technologies each alternative would employ and the administrative feasibility of implementing the alternative.
- **Indemnification** - The process that involves the exemption of a party from a legal penalty.
- **Information Repository** - The physical location(s) where a collection of site information (including the administrative record) is located.
- **Innovative Technology** - A new or existing full-scale technology developed to improve the speed, cost- effectiveness, and/or efficiency of cleanup actions.
- **Installation** - The real property owned, formerly owned, or leased by the Navy, including a main base and any associated contiguous real property identified by the same real property number.

- **Installation Restoration (IR) Program** - Established in 1984 to help identify investigate, and cleanup contamination on *DoD* properties; conducted under the auspices of CERCLA. as amended; the *DoD* equivalent to the EP A Superfund program.
- **Interagency Agreements (IAG)** - A formal agreement between the EPA, the State, and the Navy that establishes objectives, responsibilities, procedures. and schedules for remediation at each installation. A FFA becomes an IAG for an operable unit or site cleanup at an installation once the ROD is signed and new schedules are negotiated for the remedial action.
- **Interim Action** - Those removal actions that only partially address a problem or only address the problem for a short time. Interim actions require further study and possibly action in addition to the interim action. Interim actions are most appropriate to mitigate immediate threats while allowing time for studies to be conducted as necessary. to determine a final solution.
- **Interim Remedial Action (IRA)** - Is a near-term action taken to address releases of HS that require expedited response. IRAs are often the first response to a release or threatened release and include Emergency Time Critical and Non-Time Removal Actions.
- **Land Management** - Programs and techniques to manage lands, wetlands, and water quality including soil conservation, erosion control, and non-point source pollution, surface and subsurface waters, habitat restoration, control of noxious weed and poisonous plants, agricultural out leasing, range management, identification and protection of wetlands, watersheds, flood plain management, landscaping and grounds maintenance.
- **Lead Agency** - The agency that provides the OSC/RPM to plan and implement response action under the NCP.
- **Legal Agreement** - A means of setting project milestones; current DON environmental cleanup program funding policy requires incorporating relative risk site evaluations and DON environmental restoration funding controls.
- **Legal Requirements** - Any action or project that is eligible for DERA funding and has a legal basis for the requirement. Most DON cleanup projects fall under this definition. Examples include studies and cleanups based on CERCLA. RCRA Corrective Action requirements and RCRA UST authority. Broadly defined all applicable Federal, State, interstate, and local statutory and regulatory requirements, both procedural and substantive, as well as requirements contained in statutorily mandated or authorized documents.
- **Legally Enforceable Agreement and Order** - Considered the same as a legal agreement.

- **Long Term Management (LTMgt)** - Is the period of site management (i.e. maintenance, monitoring, record keeping, Five-year reviews, etc.) initiated after the remedial action objectives have been met. *NAVFAC can only program LTMgt. for sites that have achieved RC.*
- **Long Term Monitoring (LTM)** - is monitoring which occurs at sites that have hazardous substances pollutants or contaminants remaining after Remedial Action has been completed (Response Complete) or is monitoring which confirms that previous site remediation continues to be effective. Long Term Monitoring would occur where the DON has determined that the low concentrations of substances remaining at a site do not present a health or environmental risk. L TM also may occur when periodic sampling is required after Response Complete to substantiate that previous site remediation continues to be effective.
- **Long Term Operations** - see definition for remedial action operations.
- **Mature Innovative Technology** - technologies usually available from the RAC contractor.
- **Maximum Contaminant Level (MCL)** - The maximum permissible level of a contaminant in water that is delivered to any user of a public water system. Remedial action shall attain MCLs goals where such goals are relevant and appropriate to the circumstances of the release.
- **Migration Pathway Factor (MPF)** - Represents the likelihood of a migration medium (i.e. groundwater, surface water, air, and soil) to complete an exposure pathway.
- **Mixed Waste** - HW that has become mixed with radioactive waste creating a combination that is regulated under both RCRA and the Atomic Energy Act.
- **Monitoring** - Used to track the presence, migration, or threat posed by contaminants at a site; may be used as a site between response actions or when no other response action is appropriate until information or site status changes.
- **Mutagenic** - Having to do with mutation in a gene that causes mutation in an organism.
- **National Priorities List (NPL)** - The EPA's list of the nation's highest priority sites that need to be cleaned up. The EPA bases this list on a site's threat to the public health, welfare, or the environment using the Hazard Ranking System (HRS). Sites receiving scores above 28.5 on the HRS and having the highest potential for effecting public health, welfare, and the environment are put on the NPL.
- **National Resources Trustees (NRTs)** - Federal trustees with statutory responsibilities with regard to protection or management of natural resources or

stewardship responsibilities as a manager of Federally owned land; trustees may not be State agencies or Indian Tribes.

- **National Response Center (NRC)** - The national communications center for handling activities related to response actions. Acts as the POC for all pollution incident reporting.
- **Natural Resources Damage Assessment** - Used to determine the extent of destruction, injury, and loss of the natural resource and assess damages for the injury and the loss of use of the resource because of a spill or release.
- **Navy On-Scene Coordinator (NOSC)** - The Navy official predesignated to coordinate Navy oil and hazardous substances (OHS) pollution contingency planning and direct Navy OHS pollution response efforts in the preassigned area.
- **No Further Response Action Planned (NFRAP)** - This term is used to designate sites that do not warrant further action in the site evaluation process. The primary criterion for NFRAP is a determination that the site does not pose any significant threat to public health or the environment. An installation can make an NFRAP decision at several points in the IR process, but must document the reasons for the decision. If future information reveals the need for additional remedial activities, the Installation Commander may reverse this decision.
- **NORM** - short for "normalization of data", is a multi-tiered client/server database application developed in response to increasing environmental data collection and reporting requirements established by DoD and decreasing resources with which to manage data. This system provides the RPMs, managers, analysts and others with a comprehensive set of environmental data management tools that streamline data collection and budget preparation.
- **Occupational Exposure** - Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.
- **On-Scene Coordinator** - The predesignated Federal official who coordinates and directs Federal responses under subpart D of the NCP; or the official designated by the lead agency to coordinate and direct removal actions under subpart E of the NCP .
- **On-site** - The actual extent of contamination in areas in very close proximity to the contamination necessary for implementation of the response action.
- **Operable Unit (OU)** - A discrete action that comprises an incremental step toward comprehensively addressing site problems; an action that manages, eliminates, or mitigates a release, threat of a release, or pathway of exposure. OUs may address geographical portion of a site, specific site problem or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of a site.

- **Other Hazardous Waste (OHW) Operations** - One of the DERP categories covering hazardous waste reduction equipment, process changes, and other hazardous waste minimization initiatives. OHW objectives are a Component's responsibility and should be programmed within that Component's resources.
- **Partnering** - The process that brings together key players in a project to work as a team. Positive leadership, customer focus, employee empowerment, and continuous process improvement are hallmarks of the partnering process.
- **Performance Evaluation (PE) Sample** - Contains known quantities of analytes (unknown to the laboratory) sent to a laboratory for analysis as part of the lab evaluation.
- **Permissible Exposure Limit (PEL)** - The maximum permissible concentration of a toxic chemical or exposure level of a harmful physical agent (normally averaged over an 8-hour period) to which a person may be exposed.
- **Plume** - The mass of pollution in the air as it travels downwind from its source; the term is also applied to the movement of water pollution, a in "thermal plume," which is the mass of heated water that travels downstream in a river from where a power plant or factory discharges heated water,
- **Pollutant (Contaminant)** - As defined by section 101(33) of CERCLA, a pollutant includes, but is not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (i.e. including malfunctions in reproduction) or physical deformations in such organisms or their offspring. This term *does not* include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under section 101(14)(A) through (F) of CERCLA, *nor does* it include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixture of natural gas and such synthetic gas). For purposes of the NCP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to health and welfare.
- **Pollution Migration Pathways** - Common transport mechanisms for environmental pollutants to include: wind, rain, surface water, groundwater, and human intervention, i.e., pipes, drainage ditches, and roads. Also includes physical influences such as topographical and geological influences and biological influences such as food pathways.
- **Polychlorinated Biphenyl (PCB)** - Any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees. Prior to stringent regulation of PCBs. PCBs were used as a fire retardant and for other purposes. such as sound insulating felt and electrical cables.

- **Polycyclic Aromatic Hydrocarbon (PAH)** - A highly reactive compound consisting of hydrogen and carbon atoms arranged in multiple rings.
- **Potentially Responsible Party Site** - Sites where the *DoD* has no current or past ownership interest and where the *DoD* has a partial responsibility for cleanup of the site under CERCLA.
- **Preliminary Assessment (PA)** - The NCP defines a PA as a review of existing information and an off-site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A PA may include an on-site reconnaissance, if appropriate.
- **Preliminary Remediation Goals (PRGs)** - Concentrations of contaminants for each exposure route that are believed to provide adequate protection of human health and the environment based on preliminary site information. Assist in setting parameters for evaluating technologies and developing remedial alternatives. May be used for risk screening.
- **Presumptive Remedy** - An expedited approval process, not the only technically feasible alternative, used to accelerate site-specific analysis of remedies by focusing the feasibility study efforts.
- **Proposed Plan** - Supplements the RI/FS and provides the public with a reasonable opportunity to comment on the preferred alternative for remedial action as well as alternative plans under consideration and to participate in the selection of remedial action at a site.
- **Public Health Assessment (PHA)** - The evaluation of data and information on the release of hazardous substances into the environment in order to assess any current or future impact on public health, develop health advisories or other recommendations, and identify studies or actions needed to evaluate and mitigate or prevent human health effects.
- **Radioactivity** - A property of certain types of matter characterized by the spontaneous transformation of the nuclei of its atoms and the emission of radiation.
- **Receptor Factor** - Represents the potentially affected human and ecological receptors within a reasonable vicinity of a site. The receptor factor is divided into three levels: identified receptor probability, potential receptor probability, and limited receptor probability.
- **Range Rule** - *Final determination of an acceptable DoD and EPA range rule has not been achieved at the publication of this re-written manual.* The Proposed DoD Range Rule (32 C.F.R. Part 178), *Closed, Transferred, and Transferring Ranges Containing Military Munitions; Proposed Rule*, covers the clean-up of munitions and other hazardous constituents on ranges that are closed, transferring, or already transferred. The proposed rule provides a process to evaluate response actions on those actions on

that encompass safety, are protective of human health and the environment, and address risks based upon reasonable anticipated future land use.

- **Range Rule Risk Methodology (R3M)**- Under the proposed Range Rule (1997), DoD has developed the Range Rule Risk Methodology (R3M), a process to effectively manage risks posed by unexploded ordnance and other constituents often found on former military ranges. *This entire rule will be removed when the final Range Rule is established by DoD in mid to late 2000.*
- **Record of Decision (ROD)** -Is the official term used by CERCLA and the NCP for the documentation of a final remedial response action decision at an NPL site. It describes the remedy selection process and the remedy method selected. The installation commanding officer must sign the ROD before initiation of remedial action. The term "Decision Document" for a non-NPL site is similar to a ROD for an NPL site.
- **Regional Environmental Coordinator** -Serves as the senior Navy officer in a local region to coordinate environmental matters and public affairs. Designated by the Area Environmental Coordinator and may be designated as NOSC for spill response.
- **Relative Risk** -The grouping of sites or AOCs in the DERP into High, Medium or Low categories based on an evaluation of site information using three key factors of Contamination Hazard. Migration Pathway and Receptors.
- **Release** - Defined by CERCLA as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment. For purposes of the NCP, release also means the threat of a release.
- **Relevant and Appropriate Requirement** -Those cleanup standards, standards of control, and other substantive environmental protection requirements, criteria, or limitations promulgated under Federal or State law that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. State standards that are identified by a State in a timely manner and that are more stringent than Federal requirements may be relevant and appropriate.
- **Remedial Action (RA)** - Actions consistent with permanent remedy taken instead of, or in addition to, removal actions in the event of a release or threatened release of a hazardous substance into the environment,. To prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. RA covers two periods of activity at the site.
- **Remedial Action Contract (RAC)** - A multi-year Cost-Plus-Award Fee contracts which the Navy uses to provide for re mediation and long-term maintenance of Navy Installation Restoration sites.

- **Remedial Action Construction (RA-C)** is the period during which the EFD/A puts the final remedy in place.
- **Remedial Action Operations (RA-O)** - (Formerly Long Term Operation [LTO]) It is that period of operations and maintenance (O&M) required after the remedial action construction(RA-C) is completed (Remedy in Place [RIP] , but the remedial action objective has not been achieved). Monitoring programs on a site during the RA-O phase are part of the RA-O. They are not LTMgt.
- **Remedial Action Process** - Provides a careful progression through the four phases of identification, investigation, cleanup, and closure of a site in the IR Program.
- **Remedial Design (RD)** -The technical analysis and procedures which follow the selection of remedy for a site and result in a detailed set of plans and specifications for implementation of the remedial action.
- **Remedial Investigation (RI)** - A detailed study that includes soil and water sampling to determine the nature and extent of contamination at a site. It includes a health assessment, which estimates risks to human health and the environment because of the contamination. The RI emphasizes data collection and site characterization. It is generally performed concurrently and in an interactive fashion with the FS.
- **Remedial Project Manager (RPM)** - The official designated by the lead agency to coordinate, monitor, or direct remedial or other response actions under subpart E of the NCP.
- **Remedy In Place** - That point in time when RA-C of a system is complete, all testing has been accomplished, and the remedy will function properly but the remedial objectives have not been met. This term only applies when there is a period of RA-O following RA-C.
- **Removal Action** - A removal action (also known as an Interim Remedial Action [IRA]) is a near-term action taken to address releases of HS that requires expedited response. Removal actions are often the first response to a release or threatened release.
- **Reportable Quantity (RQ)** - The specified amount of a hazardous substance set by EPA that must be reported when released into the environment, must be reported under EPCRA, Section 304.
- **Response** - As defined by CERCLA §101(25), means remove, removal, remedy, or remedial action, including enforcement activities related thereto, A "response action" is characterized by the extent to which the threats are mitigated by the action, either interim or final.

- **Response Complete (RC)** - A site achieves RC when it meets the remedial action objectives. This is a Navy determination with regulatory concurrence where a cleanup agreement (FFA for NPL sites, FFSRA for Non -NPL sites) requires it.
- **Restoration Advisory Board (RAB)** - A group established to serve as a focal point for the exchange of clean-up information between an installation and the local community. Navy policy is to establish a RAB at every installation with an IR program, including at bases subject to BRAC. Members of the RAB include the Navy, EPA officials, appropriate State and local authorities, federal and State natural resources trustees, and representatives of the affected community.
- **Restoration Management Information System (RMIS)** - A DoD database used to track information on the status and progress of activities at sites in the DERP .It is used to support the Annual Report to Congress.
- **Risk** -A complex evaluation of both the amount of potential damage and the probability of the damage actually occurring.
- **Risk Assessment** -Distinctly different from risk management in that the risk assessment establishes that a risk is present and defines a range or magnitude of the risk. A concept grounded in probability, not certainty. The ultimate outcome of a risk assessment is the need to decide on what action is appropriate based on the results.
- **Risk Evaluation** -Vary in scope from simple comparisons of contamination to health-based levels to full-blown risk assessments addressing all contaminants and pathways. A risk evaluation conducted as part of the EEICA is called "streamlined" risk evaluation. Most risk evaluations for removal actions are limited to those contaminants and pathways that the removal action will address.
- **Risk Management Concept** - Serves as a general framework for Components to build their out-year IR Programs taking into consideration relative risk as a major factor. Ensures that higher risk sites receive higher priority in the cleanup process; focuses on risk while also evaluating all relevant factors at a particular cleanup site. Involves the evaluation of the criteria for selection of the preferred remedy and. using information from the risk assessment and the listing of remedial options, ultimately allows for the selection of a preferred remedy.
- **Risk Management Priorities** - Relative risk, legal agreements, military readiness, stakeholder's concerns, innovative technologies, and cost effective contracting procedures help determine the priority of sites for cleanup within funding limits.
- **Risk Screening** - Used to determine if contamination is a threat and to establish cleanup levels. Compares site data to screening levels or criteria to determine if a potential problem may exist.
- **Rolling Milestones Provision** - Calls for annual updates to agreement milestones based on yearly appropriations; milestones are displayed in a Site Management Plan.

- **Superfund Accelerated Cleanup Model (SACM)** - In April 1992, EPA introduced this model which streamlines the traditional Superfund response process that was established by Congress in CERCLA as amended by SARA. SACM doesn't change the regulation for the traditional site evaluation process, but rather makes administrative changes to the traditional approach, while remaining consistent with the existing response regulations outlined in the NCP.
- **Sampling and Analysis Plan (SAP)** - Provides a process for obtaining sampling data of sufficient quantity and quality to satisfy data needs. It consists of two parts: (1) Field Sampling Plan, which describes the number, type, and location of samples and the type of analyses; and (2) the Quality Assurance Project Plan, which describes policy, organization, and functional activities and the data quality objectives and measures necessary to achieve adequate data for use in planning and documenting the removal action.
- **Site** - A location on or off an installation's property where a hazardous substance has been deposited, stored, disposed, or placed, or has otherwise come to be located, due to installation activity before October 1986, the date that Congress enacted SARA. Such areas may include multiple sources and may include the area between sources. One should not confuse this with the EPA practice of listing an entire installation on the NPL. An NPL installation will generally have several discrete sites.
- **Site Characterization and Penetrometer System (SCAPS)** - A field screening method that uses fluorescence to detect petroleum hydrocarbon compounds through a probe pushed into the ground. Fully self-contained and includes soil/groundwater sample retrieval capabilities and a remote decontamination system.
- **Site Closeout** - This is the final step for IR sites. A site reaches site closeout when no further response actions under the IR program are appropriate or anticipated and the regulatory agencies concur. For NPL sites, this step will include following the proper procedure for deletion from the NPL according to the NCP. Actual NPL site closeout date is the day the deletion appears in the Federal Register. Only under unusual circumstances will a site that has been closed out be reopened.
- **Site Inspection (SI)** - An on-site inspection to determine whether there is a release or potential release and the nature of the associated threats.
- **Solid Waste** - Includes solid, liquid, semi-solid, and contained gaseous material.
- **Solid Waste Management Unit (SWMU)** - For the purpose of RCRA corrective actions, any unit in which an installation has placed wastes at any time, regardless of whether the unit was designed to accept solid waste or HW. Such units could include old landfills, wastewater treatment tanks and leaking process or waste collection sewers.
- **Source** - Area where hazardous substances or petroleum products have been deposited, stored, released, disposed of, or placed.

- **Sovereign Immunity** - The concept that the sovereign (i.e., the federal government) is above the law and therefore immune from suit. This is an ancient concept based in Anglo-Saxon law. The United States is not subject to federal, State, intrastate or local laws and regulations unless Congress waives sovereign immunity. Many federal environmental laws, including the CAA, CWA, RCRA and SDWA contain waivers of sovereign immunity that make federal facilities subject to federal, State, intrastate and local laws. No two waivers are identical and all waivers are strictly construed in favor of the sovereign by the courts.
- **Stakeholder** - Interested parties including individual residents who live on or near the installation; representatives of citizen, environmental, and public interest groups whose members live in the vicinity of the installation, workers involved or affected by installation operations, and elected and appointed local government officials and representatives of Federal and State regulatory agencies. The term "stakeholder" is used in the context of RABs.
- **Stressor** - Any physical, chemical or biological entity that can induce an adverse environmental response.
- **Superfund Amendments and Reauthorization Act (SARA)** - Reauthorize the funding provisions, authorities and requirements of CERCLA and associated laws in 1986.
- **Technical Assistance Grants (TAGs)** - For NPL installations provides up to \$50,000 to community groups for the purpose of hiring technical advisors to help citizens understand and interpret site-related technical information for themselves. The group must provide 35% of the total cost of the project to be supported by TAG funds and must budget the expenditure to cover the entire cleanup period.
- **Technical Assistance Public Participation, (TAPP)** - Purpose of this program is to assist RAB and TRC community members in obtaining independent assistance in interpreting scientific and engineering data related to environmental hazards and restoration activities at an installation. The goal of the program is to enhance the public's ability to participate in the decision-making process by improving their understanding of overall conditions and response activities. This program is centrally managed by CNO (N453), and will be funded from the Navy (ER, N) account for active bases, or the Base Realignment and Closure (BRAC) account for closing bases.
- **Technical Review Committee (TRC)** - SARA section (211) requires an installation establish a TRC to facilitate community involvement in the review and comment on technical aspects of response actions and proposed actions with respect to releases or threatened releases at Navy installations. Members of the TRC include the DON, EPA officials, appropriate State and local authorities, Federal and State natural resources trustees, and representatives of the community. Navy policy is to convert all TRCs to RABs.

- **Technology Demonstration** - A field-scale demonstration of a technology used to generate performance and cost data.
- **Teratogenic** - Having to do with a birth defect caused by an induced substance.
- **Third-Party Sites** - Non-Federally-owned sites that allegedly have received potentially hazardous substances from the DON. The EPA has lead authority for cleanup at non-Federally-owned sites.
- **Threshold Limit Value (TLV)** - Established by the American Conference of Governmental Industrial Hygienists. Refers to airborne concentrations of a substance and represents conditions under which it is believed that nearly all workers may be exposed day after day without adverse effect.
- **To Be Considered (TBC) Requirements** - Non-promulgated advisories (such as reference dose or potency factors) criteria, and guidance issued by Federal and State governments and not having the same status as ARMs; supplement ARARs where they do not exist or are insufficient to protect human health and the environment.
- **Toxicity** - 1) the harmful effects produced by a substance; 2) the capacity of a substance to cause any adverse effects, as based on scientifically verifiable data from animal tests or epidemiology.
- **Uncontaminated Property** - For purposes of BRAC property which is to be transferred real property on which no hazardous substances and no petroleum products or their derivatives, including aviation fuel and motor oil, were stored for one year or more, known to have been released, or disposed of.
- **Uncontrolled Hazardous Waste Site** - An area identified as such by a governmental body, whether Federal, State, local, or other, where an accumulation of HS creates a threat to the health and safety of individuals or the environment or both. Examples of uncontrolled HW sites include, but are not limited to, surface impoundments, landfills, dumps, and tank or drum farms. This definition does not cover normal operations at treatment, storage, and disposal (TSD) sites.
- **Underground Storage Tank (UST)** - All tanks and attached piping containing regulated substances in which 10 % or more of the tank volume (including piping) is beneath the surface of the ground.
- **Undertaking** - Any Federal, Federally-assisted, or Federally-Licensed action, activity, or program, new or continuing, that may have an effect on National Register resources and therefore triggers Section I(X) of CERCLA consultation responsibilities.
- **Vadose** - Having to do with or occurring in the unsaturated area between the earth's surface and the water table.

- **Volatile Organic Compounds (VOCs)** - Carbon-containing substances released by both natural processes and human activities that readily produce fumes; their reaction with nitrogen oxides in sunlight produces photochemical smog.